1. (Previously Presented) A method for motion-vector-aided interpolation of a pixel of an intermediate image lying between two input images, the method comprising:

selecting a first pixel from the first input image and assigning a first video information value to the first pixel using a first motion vector;

selecting a second pixel from the second input image and assigning a second video information value to the second pixel using the first motion vector;

selecting a third pixel from the first input image and assigning a third video information value to the third pixel using a second motion vector;

selecting a fourth pixel from the second input image and assigning a fourth video information value to the fourth pixel using the second motion vector;

determining a first interval specified by the first video information value and the second video information value or a second interval specified by the third video information value and the fourth video information value; and

mixing the video information values by multiplying the first video information value by a first weighting factor, the second video information value by a second weighting factor, the third video information value by a third weighting factor, and the fourth video information value by a fourth weighting factor and adding the weighted video information values to obtain a video information value of the pixel of the intermediate image, the weighting factors being chosen such that the video information value of the pixel of the intermediate image lies within the determined first or second intervals.

2. (Previously Presented) The method of claim 1, further comprising the step of selecting the first, second, third and fourth weighting factors based on the one of the first and second determined intervals that is smaller in absolute value.

3. (Previously Presented) The method of claim 1, further comprising the step of equally weighting the first video information value and the second video information value.

4. (Previously Presented) The method of claim 1, further comprising the step of equally weighting the third video information value and the fourth video information value.

5. (Previously Presented) The method of claim 1, where the second motion vector comprises a zero vector.

6. (Previously Presented) The method of claim 1, further comprising the steps of:

generating a first intermediate value by mixing the first video information value and the second video information value;

generating a second intermediate value by mixing the third video information value and the fourth video information value; and

weighting the first and second intermediate values using a weighting factor to obtain the video information value of the pixel of the intermediate image.

7. (Previously Presented) The method of claim 6, further comprising the steps of:

equally weighting the first video information value and the second video information value during the step of generating the first intermediate value; and

equally weighting the third video information value and the fourth video information value during the step of generating the second intermediate value.

8. (Previously Presented) The method of claim 7, further comprising the step of selecting one of the first intermediate value and the second intermediate value as the video information value of the pixel of the intermediate image depending on the location of the first and second intermediate values relative to the determined first and second intervals.

9. (Previously Presented) The method of claim 8, where the step of selecting one of the first and second intermediate values selects one of the first and second intermediate values that is within one of the first and second determined intervals.

10. (Previously Presented) The method of claim 1, further comprising the steps of:

determining a first interpolated video information value using the first determined interval;

determining a second interpolated video information value using the second determined interval; and

mixing the first interpolated video information value and the second interpolated video information value to generate the video information value of the pixel of the intermediate image.

11. (Previously Presented) The method of claim 10, where the first and second interpolated video information values are equally weighted.

12. (Previously Presented) Apparatus for motion-vector-aided interpolation of a pixel of an intermediate image lying between two input images, the apparatus comprising:

means for selecting a first pixel from the first input image and assigning a first video information value to the first pixel using a first motion vector;

means for selecting a second pixel from the second input image and assigning a second video information value to the second pixel using the first motion vector;

means for selecting a third pixel from the first input image and assigning a third video information value to the third pixel using a second motion vector;

means for selecting a fourth pixel from the second input image and assigning a fourth video information value to the fourth pixel using the second motion vector;

means for determining a first interval specified by the first video information value and the second video information value or a second interval specified by the third video information value and the fourth video information value; and

means for mixing the video information values by multiplying the first video information value by a first weighting factor, the second video information value by a second weighting factor, the third video information value by a third weighting factor, and the fourth video information value by a fourth weighting factor and adding the weighted video information values to obtain a video information value of the pixel of the intermediate image, the weighting factors being chosen such that the video information value of the pixel of the intermediate image lies within the determined first or second intervals.

13. (Previously Presented) The apparatus of claim 12, further comprising means for selecting the first, second, third and fourth weighting factors based on the one of the first and second determined intervals that is smaller in absolute value.

14. (Previously Presented) The apparatus of claim 12, further comprising means for equally weighting the first video information value and the second video information value.

15. (Previously Presented) The apparatus of claim 12, further comprising means for equally weighting the third video information value and the fourth video information value.

16. (Previously Presented) The apparatus of claim 12, further comprising:

means for generating a first intermediate value by mixing the first video information value and the second video information value;

means for generating a second intermediate value by mixing the third video information value and the fourth video information value; and

means for weighting the first and second intermediate values using a weighting factor to obtain the video information value of the pixel of the intermediate image.

17. (Previously Presented) The apparatus of claim 16, further comprising:

means for equally weighting the first video information value and the second video information value during the step of generating the first intermediate value; and

means for equally weighting the third video information value and the fourth video information value during the step of generating the second intermediate value.

18. (Previously Presented) The apparatus of claim 17, further comprising means for selecting one of the first intermediate value and the second intermediate value as the video information value of the pixel of the intermediate image depending on the location of the first and second intermediate values relative to the determined first and second intervals.

19. (Previously Presented) The apparatus of claim 12, further comprising:

means for determining a first interpolated video information value using the first determined interval;

means for determining a second interpolated video information value using the second determined interval; and

means for mixing the first interpolated video information value and the second interpolated video information value to generate the video information value of the pixel of the intermediate image.

20. (New) A method for motion-vector-aided interpolation of a pixel of an intermediate image lying between two input images, the method comprising:

selecting a first pixel from the first input image and assigning a first video information value to the first pixel using a first motion vector;

selecting a second pixel from the second input image and assigning a second video information value to the second pixel using the first motion vector;

selecting a third pixel from the first input image and assigning a third video information value to the third pixel using a second motion vector;

selecting a fourth pixel from the second input image and assigning a fourth video information value to the fourth pixel using the second motion vector;

determining a first interval specified by the first video information value and the second video information value or a second interval specified by the third video information value and the fourth video information value; and

mixing the video information values by multiplying the first video information value by a first weighting factor, the second video information value by a second weighting factor, the third video information value by a third weighting factor, and the fourth video information value by a fourth weighting factor and adding the weighted video information values to obtain a video information value of the pixel of the intermediate image, the weighting factors being chosen such that the video information value of the pixel of the intermediate image lies within the determined first or second intervals and a sum of the first, the second, the third and the fourth weighting factors is equal to approximately 1.